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RECENT RELEASES OF NEW VARIETIES - NO. 2

Wheat

Warrior Winter Wheat (C.I. 13190) - Warrior was developed cooperatively by the Nebraska Agricultural Experiment Station and USDA from a cross of Pawnee x Cheyenne. The original cross was made at Lincoln, Nebraska in 1942. Warrior is a moderately short growing variety, is winter hardy, matures about one day earlier than Nebred, and has exceeded both Nebred and Cheyenne in western Nebraska yield tests. It has greated straw strength than Nebred and is more resistant to loose smut and moderately resistant to the western strain of hessian fly, but is susceptible to western Streak, Mosaic, leaf rust, and stem rust. Warrior has strong gluten characteristics and ranks between Nebred and Cheyenne in mixing time, mixing tolerance and other quality characteristics. The test weight of Warrior has averaged 1/2 to 1 pound per bushel less than Nebred and Cheyenne.

Omaha Winter Wheat (C.I. 13015) - Omaha was selected from a cross of Nebred and Pawnee made at the Kansas Experiment Station in 1942. The variety has been further developed by the Nebraska Agricultural Experiment Station and USDA. This variety is similar to Pawnee in maturity, yield, plant height and straw strength. It is superior to Pawnee in test weight, winter hardiness and resistance to shattering. Omaha is resistant to soil borne Mosaic which is sometimes an important factor in wheat production. It is partially resistant to hessian fly but susceptible to stem and leaf rust. The milling and baking characteristics of Omaha are similar but somewhat better than those of Pawnee.

Avon (C.I. 13477) - Avon was developed by the Cornell University Agricultural Experiment Station in cooperation with USDA and other experiment stations. Avon combines a number of desirable characteristics that are popular with farmers. It is the first winter wheat in the eastern United States to combine genetic resistance to the three smut diseases of wheat. It is shorter than Genesee, the leading commercial variety and is stiffer strawed. Its greater lodging resistance is an important feature and higher yields can be expected on fertile fields where lodging of grain frequently is a problem. In addition, it produces significantly higher test weight grain. Avon meets the same high milling standards as previous Cornell varieties. The combination of resistance to the three smuts gives added protection against disease loss.

Wheat (cont'd.)

Omar - A red-chaffed white club wheat. In 1955 Omar was released cooperatively in Washington, Oregon and Idaho. It was released because of its superiority over Elgin, Elmar and other club wheats in resistance to smut. In smut tests Omar exhibited a high resistance to all known races of common bunt. It is also highly resistant to dwarf bunt. Omar is equal to Elmar and Elgin in its resistance to shattering and similar in winter hardiness, however, it is less winter hardy than the Turkey types. It is excellent for cake and cookies but not suitable for bread making. In 19 trials during 1953-55 Omar out yielded Elmar in both Washington, Oregon and Idaho. It is recommended in the white club producing area of Washington, Oregon and Idaho but not in the lower rainfall areas of these States where it tends to have a high protein content, making it undesirable for milling and baking.

Monon (4746A2-10-1-2-1) - A new soft red winter wheat developed by the Purdue University Agricultural Experiment Station and the USDA, was increased for distribution to certified seed growers for 1959 fall seedings. Monon, an Indian word meaning "swiftly moving", is the name chosen for this variety which grows more rapidly in the fall and early spring and is earlier in maturity than other varieties adapted to Indiana. Monon combines resistance to hessian fly and leaf rust in a plant type shorter and earlier than Knox. It is a beardless white-chaffed variety and has yielded well in all areas of the State. It is generally similar in test weight to Vigo, Seneca and Dual, but lower than Knox, Vermillion and LaPorte and is equal or superior to these varieties for commercial milling and baking. Monon appears similar to Vermillion in winter hardiness and is superior to other varieties currently grown in Indiana. It is resistant to soil borne Mosaic and to leaf rust and is moderately resistant to powdery mildew in the mature plant state. Monon is susceptible to stem rust but may be expected to escape severe damage because of its earliness. It is also susceptible to races of loose smut now common in Indiana.

Colorow (C.I. 12865) - A beardless, hard red winter wheat with white glumes. It is a selection from a cross of (Marquillo-Oro) x (Oro-Turkey x Florence) made at the Kansas Agricultural Experiment Station and selected at the Colorado Agricultural Experiment Station. The variety is resistant to dwarf bunt which occurs in western Colorado. It is a good quality wheat, being equal to Cheyenne in milling and baking tests conducted by the Colorado Milling and Elevator Laboratories over a three-year period. During six years of yield tests at Craig, Colorado, it has out-yielded Cheyenne and Wasatch. It is recommended for western Colorado where dwarf bunt is a problem. It will most likely replace Wasatch.

Ga. 1123 - A new hessian fly resistant winter wheat for Georgia and the Southeast. It was selected at the Georgia Experiment Station from a complex hybrid. It is resistant to hessian fly, leaf rust, and tolerant to mildew. It is medium early with good straw. Yields of grain and forage have been outstanding the past five years. Milling quality is excellent soft wheat quality. Registered seed for fall planting will be available.

Wheat (cont'd.)

Lakota (LD 392) - Lakota is an early maturing, high-yielding durum with short and moderately strong straw and good resistance to stem rust, particularly to 15B biotypes. It is earlier, shorter, and more resistant to stem rust than any of the varieties available at this time. Its bushel weight is satisfactory, but slightly lower than that of Langdon, the most widely grown durum variety. Its semolina and macaroni qualities are good. The parentage is complex. The last cross made in its development was Sentry x (Ld 379 - Ld 357). Both Sentry and Ld 357 are high quality, early durums with short, strong straw. Ld 379 is a Khapli emmer derivative highly resistant to 15B stem rest. It has a lower average bushel weight than Wells. It is recommended for growing primarily in the northern part of the durum area of North Dakota where climate is more favorable for production of high bushel weights. Lakota is a spring variety and will most likely replace Sentry and to a considerable extent Langdon and Ramsey.

Wells (Ld 389) - Wells is an early maturing, high-yielding durum with short and moderately strong straw and good resistance to stem rust, particularly to 15B biotypes. It is earlier, shorter, and more resistant to stem rust than any of the varieties available at this time. Its bushel weight is satisfactory, but slightly lower than that of Langdon, the most widely grown durum variety. Its semolina and macaroni qualities are good, however, it is considered a "weak-gluten" durum. The parentage is complex. The last cross made in its development was Sentry x (Ld 379 - Ld 357). Both Sentry and Ld 357 are high quality, early durums with short, strong straw. Ld 379 is a Khapli emmer derivative highly resistant to 15B stem rust. Recommended for durum growing areas of North Dakota, South Dakota and Minnesota. Wells is a spring wheat and will most likely replace Sentry and to a considerable extent Langdon and Ramsey.

Oats

Oneida (C.I. 7458) - A new mid-season spring oat for New York was developed by the Cornell University Agricultural Experiment Station at Ithaca in cooperation with USDA and other experiment stations. Oneida was designed to give greater protection against the black stem disease which has been responsible for occasional severe stem break and lodging in Garry. It stands well under moderate to high fertility conditions, and appears adapted to all oat-growing sections of New York. The grain color is deep yellow. It has shown almost complete resistance to loose smut of oats and is resistant to several stem rust races, including the race most prevalent in New York. Of eight varieties tested in New York State the past two years Oneida is equal or superior to those of 6 of the 8 varieties and exceeded only by that of Garry. It is expected to supplement the present recommended varieties in New York State.

Park - This oat variety was developed through the cooperative efforts of several State experiment stations and USDA and was released to certified seed growers by the University of Idaho Agricultural Experiment Station. Park oats is similar in growth characteristics to Overland and is well adapted for use as a companion crop for alfalfa and clover. Its stiff straw, uniform height, and even ripening, makes it suitable for combine harvesting. Park is a white-kerneled oat with quality comparable to Overland, but its test weight is inferior to Bannock. It is moderately resistant to stem rust and smut, but susceptible to Victoria blight. Park has a good yield record under both irrigated and non-irrigated conditions.

Curt - California 5160, or "Curt Oats", was developed by Mr. C. A. Suneson, ARS, USDA, in cooperation with the California Agricultural Experiment Station. It is a spring oat with red kernels, short stiff straw, and is weakly awned on the primary oat only. Its maturity is the same as Kanota. This oat variety was derived from crossing nullisomic from (Victoria-Richland x Red Rust Proof) x Palestine^2 to Kanota in 1948 and a progeny therefrom to Kanota in 1950. Curt is uniquely short and stiff and has good Yellow Dwarf Resistance. It has better stem rust resistance than Indio; also better test weight, return recovery and straw strength. It is nearly as shatter resistant as Indio.

Minton --Minn 11-59-12 (C.I. 6935) - Minton is a high yielding yellow oat. It is medium in maturity, plant height, straw strength and seed size. Test weight is lower than other varieties such as Ajax, Andrews, Burnett, Minhafer, Garry and Rodney. It is resistant to smuts, to all races of stem rust found in the North Central region except race 7A, and to all races of crown rust prevalent in the region. In heading it has been about 2 days earlier than Ajax, 3 days earlier than Garry, 5 days earlier than Rodney and 4 days later than Minhafer, under Minnesota conditions. In Minnesota tests from 1956-59 Menton produced yields comparable with all later maturing varieties and higher than earlier maturing varieties.

Oats (cont'd.)

Moregrain - A new variety released from Coker's Pedigreed Seed Company, Hartsville, South Carolina has favorable possibilities in the Southern States. According to data from the Southwest Branch Experiment Station at Hope, Arkansas it has produced more forage than other varieties for fall grazing. Moregrain is resistant to Helminthosporium blight. The straw is about four inches shorter, it matures three to four days earlier, and has more resistance to rust and smut than Victorgrain 48-93. The two varieties are about equal in grain quality.

Clintland 60 - Closely resembles the Clintland and Clinton varieties in most agronomic characteristics but has greater stem rust resistance and has yielded somewhat more than those varieties in Nebraska tests. Clintland 60 was developed by the Indiana Experiment Station in cooperation with the USDA. It is recommended as a replacement for Clinton and Clintland in Nebraska. Clintland 60 is resistant to races 7 and 8 of stem rust and similar to Clintland in crown rust resistance. Foundation seed supplies are available for certified seed growers in 1960.

Rye

Explorer - Explorer rye was developed at the Mississippi Experiment Station by selecting rust resistant lines from Abruzzi. It has rust resistance, is winter hardy and has given good yields of grain and forage in the Southeast region as well as Georgia. Explorer rye is being increased and seed should be available in the fall of 1960.

Barley

Blanco Mariout - A white spring California Mariout was developed by C. A. Suneson of the ARS, USDA in cooperation with the California Experiment Station from a cross between Club or Golden Mariout, and California Mariout. It is the same in appearance and disease response as California Mariout, except that the seed is somewhat larger and white in color. Its area of adaptation will be the same as for California Mariout.

Georgia 8 - A selection from the complex cross (Hoodes 16 x Sunrise) x Tenwase x Wong-Jet. It is a short strawed, early, beardless variety that has proven to be resistant to all prevalent races of loose smut in the eastern United States. It is almost completely beardless. It has performed very well in yield tests in South Carolina and Alabama. Georgia 8 has given good yields of grain in recent Piedmont tests.

Soybean

Hill - Release of Hill, a new soybean variety that has many desirable characteristics and is widely adapted, was announced jointly by USDA and nine State Agricultural Experiment Stations. Hill is high-yielding, early maturing, and resistant to lodging and shattering of pods. It is resistant to bacterial pustule, wildfire, and frogeye, all major diseases of soybean foliage, and to Phytophthora rot, a fungus that attacks the roots and stems. It is also resistant to purple seed stain and has shown evidence of resistance to the root-knot nematode. Hill, which generally resembles the Lee variety but matures 21 to 28 days earlier, averages 28 to 36 inches in height, has moderate-sized stems, and heavy foliage. Hill has white flowers, and Lee has purple flowers. Hill produces slightly smaller seed than Lee. The new variety is adapted to Delaware, Maryland, Virginia, North Carolina, Missouri, Arkansas, Mississippi, Texas and New Mexico. Initial stocks of Hill seed are being produced in these States and should be generally available for planting by growers in 1961.

Ross - A pure line selection from a cross of Monroe x Lincoln, having brown pubescence on stems and pods, white flowers, yellow seed coat color and black hilum seed. Ross is best adapted to central and southern Ohio but is specifically recommended on soils where Phytophthora Root Rot is a problem because of its resistance to this disease. It was developed cooperatively with USDA and released by the Ohio Experiment Station. Ross is a spring variety and will most likely replace Lincoln.

Shelby (L9-5139) - Shelby matures at the same time as Lincoln and is similar to it in many respects. It has consistently out yielded Lincoln in its area of adaptation and frequently resists lodging somewhat better. Its needs are slightly larger and frequently higher in quality than those of Lincoln. It is similar to Lincoln in plant appearance, but the stems appear coarser and flower color is purple instead of white. Its pubescence is tawny in color, the seeds are yellow with black hilum and the pods are dark brown. The seed coat has a dull luster like Clark and contrast to the shiny luster of Lincoln. It is resistant to frogeye leaf spot. Shelby is considered adapted to central and southern Illinois. In southern Illinois it would be used as an early variety to facilitate the planting of wheat after soybean harvest. Shelby was developed cooperatively with USDA and released by Indiana, Illinois and Missouri.

Henry (H21793-7) - A pure line selection from a cross of Richland x (Illini x Dunfield), having gray pubescence on stems and pods, purple flowers, yellow seed coat color and a gray hilum on seed. Henry is adapted to all soybean growing areas of the state but is specifically recommended on soils where Phytophthora Root Rot is a problem because of its resistance to this disease. Henry was developed cooperatively with USDA and released by the Ohio Experiment Station. It is a spring variety and will most likely replace Harosoy.

Soybeans (cont'd.)

Madison (H20771-9) - A pure line selection from a cross of Monroe x Lincoln, having a gray pubescence on stems and pods, white flowers, yellow seed coat color and brown hilum on seed. Madison is adapted to all soybean growing areas of the State but is specifically recommended on soils where Phytophthora Root Rot is a problem because of its resistance to this disease. Madison was released by the Ohio Experiment Station and was developed cooperatively with USDA. It is a spring variety and Hawkeye is the variety it will most likely replace.

Ford - A new soybean variety best adapted in Central and South Central Iowa. It is the result of a backcross of Lincoln x (Lincoln x Richland). Plant and seed characteristics of Ford are difficult to distinguish from Lincoln. Ford has white flowers, brown pubescence and black hilum (seed scar) like Lincoln with nearly round seed which is slightly larger than Lincoln and Adams. Tests in Iowa during the years 1951 to 1957 have shown that the main advantage of Ford is yield. It out yielded Adams and Lincoln by over 2-1/2 bushels per acre; matures 2 days later than Adams, 1 day earlier than Lincoln and 7 days earlier than Clark; lodged slightly less than Adams, Lincoln and Clark but is the same height; had an oil and protein content comparable to Lincoln and Clark.

Lindarin (C.I. 117) - A high yielding, high oil content, lodging resistant, early maturing variety for north Indiana. It was developed cooperatively by the Agricultural Experiment Stations of the North Central region and the U.S. Regional Soybean Laboratory. Lindarin has medium sized yellow seeds with buff hilum. The pods are medium to large in size, mainly two-and three-seeded, gray in color, and borne primarily on the central stem. The plants are medium in height, rather erect in growth habit with spreading foliage, purple flowers and grey pubescence. The leaves have a marked waviness on the outer edges. The plants pod sparcely near the base which helps to reduce combining loss. In Indiana tests, Lindarin has averaged two and five days earlier in maturity than Harosoy and Hawkeye, respectively. Like Harosoy, Lindarin is resistant to frogeye leaf spot, to races of downy mildew occuring in northern Indiana and has a low susceptibility to stem canker. It will reduce the acreage of Blackhawk, Harosoy and Hawkeye.

Alfalfa

Teton - A new hardy, disease resistant, multipurpose alfalfa variety, bred and released by the South Dakota Agricultural Experiment Station. The variety has a low, wide crown with excellent spreading type of growth, and possesses a prostrate type of growth which characteristics make the variety particularly adapted to livestock grazing and for competition with grasses. Teton has high winter hardiness, high frost resistance, moderate resistance to bacterial wilt, high resistance to common leafspot and some tolerance to alfalfa rust and yellow leaf blotch. The variety has a high forage yield of good quality in the first cutting. Because of its dormancy, it has an advantage when continuously grazed and will tend to keep the grass and legume growth more nearly in a state of vegetative balance, and therefore will be less likely to cause bloat.

Alfalfa (cont'd.)

Cody - A new alfalfa that resists spotted aphids has been developed and approved by USDA and Kansas Agricultural Experiment Station, Manhattan. Cody is presently recommended in Kansas. It is expected that Cody will be generally adapted to the Central Plains area. Seed of Cody is being increased under supervision of State agronomists on a few Kansas farms. Considerable seed for certified seed production is available this year. Besides resisting spotted alfalfa aphids, Cody yielded as much forage as Buffalo in trials in Kansas when aphids attacked neither variety. Preliminary tests in Utah indicated that seed yields of the two varieties were about the same. Cody resists bacterial wilt and was damaged less than other aphid-resistant varieties by the summer black stem and leaf spot diseases.

Clover

Goldtop - A yellow blossom variety developed by the Wisconsin Experiment Station in cooperation with USDA and represents the result of crossing two superior experimental strains. Goldtop is about two weeks later in flowering than Madrid or Common Yellow sweetclover. When pastured or cut at the same stage of growth it usually yields more than Madrid but somewhat less than larger, late maturing white blossom varieties such as Spanish and Evergreen. Goldtop has excellent seeding vigor, good sustained vigor in its second year and is equal to or better than other yellow blossom varieties when used for soil improvement. A limited amount of foundation seed is available for certified seed production in 1960.

Chesapeake - A new red clover variety resulted from research conducted by Maryland Experiment Station in cooperation with the Agricultural Research Service of USDA. Chesapeake exhibits its greatest superiority on the Eastern Shore of Maryland but has been equal or superior to both Kenland and Pennscott in most tests in the State. Its favorable performance in tests of other States indicates that it has wide adaptation. The Maryland Agricultural Experiment Station will be responsible for the production of breeder seed. Foundation seed will be available only through the Maryland Crop Improvement Association.

Grasses

Masshardy - An Orchardgrass developed by the Massachusetts Agricultural Experiment Station under the guidance of Dr. Wm. G. Colby and H. M. Yegian. A leafy (if nitrogen level is adequate) variety developed from two of the later Finnish strains obtained by Dr. Colby during the 1938 season -- one from Finnish plant breeding station and one from a commercial seed man. Its outstanding characteristics are winter hardiness, lateness and leafiness. It is similar to the S-37 variety and should be adapted to Northeastern U. S. and Northern Cornbelt. It will most likely replace S-37 and Common.

Grasses (cont'd.)

Vinall - A new Russian Wildrye superior in seed production to present commercial wildrye has been released cooperatively by USDA and seven western state experiment stations. Vinall is a good seed producer which should help increase the use of Russian wildrye as a pasture grass. The new Vinall resists lodging and produces larger seeds than commercial wildrye. It was developed at the Northern Great Plains Field Station, Mandan, North Dakota by George A. Rogler and Herbert M. Schaaf of the Agricultural Research Service, USDA. Vinall produced an average of 280 pounds of clean seed per acre compared to 180 pounds of seed per acre produced by commercial Russian wildrye in 8 years of testing at Mandan, North Dakota. Limited amounts of foundation seed have been distributed for planting this spring from the following State experiment stations -- Colorado, Montana, Nebraska, New Mexico, North Dakota, South Dakota and Wyoming.

Beans

Great Northern 1140 - A new early maturing high yielding disease resistant dry bean will be available to commercial growers this year. The new variety, the result of 15 years of research, was released jointly by USDA and the Montana and Idaho Agricultural Experiment Stations. It is adapted to all areas where Great Northern type beans are grown. Great Northern 1140 is resistant to both common bean mosaic and to the "New York 15" strain of this mosaic. The variety also shows resistance to a number of strains of bean rust that have damaged susceptible varieties in Nebraska, Wyoming and Montana. The plant is erect, semi-vining, with a thick short stem and large leaves. Great Northern 1140 matures in about 85 days--a week earlier than Great Northern 31, 59 or 123. The vines are smaller and the plants have fewer leaves than most dry bean varieties. Because of its early maturity and relatively short vine, the new variety will probably require one less irrigation than other dry bean varieties. Great Northern 1140 is not resistant to curly top disease and should not be grown in the Columbia Basin or in Idaho near the deserts where this disease is frequently serious.

Red Mexican UI-35 - A small red bean similar to Red Mexican UI-3 and UI-34 which are presently grown in Idaho. Red Mexican UI-35 is adapted to Idaho growing conditions where Red Mexican beans are now produced. It is resistant to curly top and common bean mosaic (BVI and BVIA) viruses. At Kimberly it is consistently 5 to 7 days earlier maturing than Red Mexican UI-34. The seed of the two Red Mexican types are very similar in shape and color, but the UI-35 is the larger of the two. The difference in size is not expected to affect the market value of the new bean variety.

Peanuts

Spanette (18-38-42) - A new peanut variety was developed and released by the Coastal Plain Experiment Station of Tifton, Georgia in 1959. It was developed from a high-yielding pure line selection of Spanish 18-38 and tested as Spanish 18-38-42. The variety is a typical small Spanish peanut with smaller seed and higher shelling cut-turn than the varieties with medium seed size. It matures in about 120 days. Average yields have been about equal to Dixie Spanish and more than 5 percent above the parental stock. Spanette is considered as a companion variety to Dixie Spanish, with equal yield and a slightly higher shelling percentage. It was approved for certification and release in Georgia in 1959, with registered seed first grown that year. Limited quantities of seed should be available for certification in 1960.

Flax

Arny - Was developed by the University of Minnesota in cooperation with USDA. It was named after the late A. C. Arny, long-time agronomist and flax specialist at the University. Arny has blue flowers and brown seeds. It is about four days later in maturity than Marine and about a day later than B5128. Arny has given good yields in widespread tests and has good lodging resistance. The variety is slightly taller than the varieties recommended in Minnesota -- Marine, B5128, Redwood and Bolley -- and is similar in test weight. In oil quality, the variety is slightly superior to B5128 and Redwood, while in oil content it is similar to the recommended varieties. It is immune to prevalent races of flax rust and has a type of resistance not contained in the varieties Redwood and B5128. It is also quite superior to the recommended varieties in wilt resistance and is as resistant to pasmo as Marine.